

CLAIMS

1. (Currently Amended) A method for discovering services available in a computing environment, comprising:
in an application program executed on a computer:
defining a discovery scope identifying a searchable query domain;
defining a discovery filter comprising a simple filter and a rich filter, wherein the simple filter provides for expression of the searchable query domain by service type, service interface and/or service characteristics and the rich filter provides for expression of the searchable query domain using query semantics; and
initiating a search request to a first application programming interface;
in the first application programming interface:
parsing the search request;
retrieving service information corresponding to the requested discovery scope and discovery filter, wherein retrieving service information corresponding to the requested discovery scope and discovery filter comprises querying a persistent data store service; and
returning the service information to the application program.
2. (Original) The method of claim 1, wherein retrieving service information corresponding to the requested discovery scope and discovery filter comprises executing a call to at least one low-level API or protocol.

3. (Original) The method of claim 1, wherein retrieving service information corresponding to the requested discovery scope and discovery filter comprises querying a persistent data store service
4. (Original) The method of claim 1, further comprising formatting retrieved service information into a consistent service entry object data format.
5. (Original) The method of claim 2, further comprising saving information received from the at least one low-level API or protocol in a persistent data store.
6. (Withdrawn) A method for publishing services available in a computing environment, comprising:
in an application program:
 defining a service entry object;
defining a publication scope;
 assigning a unique key to the service; and
 assigning a service type;
defining properties for the service;
 defining endpoints for the service; and
 initiating a publication request to a first application programming interface;
in the first application programming interface:
 parsing the search request; and
 executing at least one low-level API call to publish the service.

7. (Withdrawn) The method of claim 6, further comprising storing the service information in a persistent data store.

8. (Withdrawn) A method for deleting a published service in a computing environment, comprising:

in an application program:

defining a service entry object;

specifying a key corresponding to the published service;

defining a deletion scope; and

initiating a deletion request to a first application programming interface;

in the first application programming interface:

parsing the search request; and

executing at least one low-level API call to delete the service.

9. (Withdrawn) The method of claim 8, further comprising deleting the service information from a persistent data store.

10. (Withdrawn) The method of claim 8, further comprising registering the deleted service information in a persistent data store.

11. (Currently Amended) A method of subscribing to service events in a computing environment, comprising:
- in an application program executed on a computer:
- defining a scope identifying a searchable query domain;
 - defining a filter comprising a simple filter and a rich filter, wherein the simple filter provides for expression of the searchable query domain by service type, service interface and/or service characteristics and the rich filter provides for expression of the searchable query domain using query semantics;
 - defining a callback function; and
 - initiating a subscription request to a first application programming interface;
- in the first application programming interface:
- parsing the search request; [[and]]
 - executing at least one low-level API call to subscribe to service events;
 - returning information from service events to the application program
12. (Original) The method of claim 11, further comprising formatting retrieved service information into a service entry object data format.
13. (Original) The method of claim 12, further comprising saving information received from the at least one low-level API in a persistent data store.
14. (Withdrawn) A system for managing information about services available in a computing environment, comprising:

a first application programming interface configured to accept service queries from an application, wherein the first application programming interface receives service queries in a first service query protocol, processes the service queries, and launches at least one corresponding service query to a second protocol;

a discovery persistence service communicatively connected to the first application programming interface, wherein the discovery persistence service receives service information from the first application programming interface and stores the service information in a data store.

15. (Withdrawn) The system of claim 14, wherein the first application programming interface provides an interface to at least one directory-based protocol and at least one ad-hoc protocol.

16. (Withdrawn) The system of claim 14, wherein the first application programming interface discovers services available on a local computing device.

17. (Withdrawn) The system of claim 14, wherein the first application programming interface discovers services available on a remote computing device.

18. (Withdrawn) The system of claim 14, wherein the first application programming interface implements a scope map, and wherein the scope map is configurable by a system administrator.